

# SERVICE MANUAL

**R410A**
**Outdoor unit**
**[model name]**
**PUHZ-RP35VHA4**
**PUHZ-RP50VHA4**
**PUHZ-RP60VHA4**
**PUHZ-RP71VHA4**
**PUHZ-RP100VKA**
**PUHZ-RP125VKA**
**PUHZ-RP140VKA**
**PUHZ-RP100YKA**
**PUHZ-RP125YKA**
**PUHZ-RP140YKA**
**PUHZ-RP200YKA**
**PUHZ-RP250YKA**
**[Service Ref.]**
**PUHZ-RP35VHA4**
**PUHZ-RP50VHA4**
**PUHZ-RP60VHA4**
**PUHZ-RP71VHA4**
**PUHZ-RP100VKA**
**PUHZ-RP125VKA**
**PUHZ-RP140VKA**
**PUHZ-RP100YKA**
**PUHZ-RP125YKA**
**PUHZ-RP140YKA**
**PUHZ-RP200YKA**
**PUHZ-RP200YKAR1**
**PUHZ-RP250YKA**

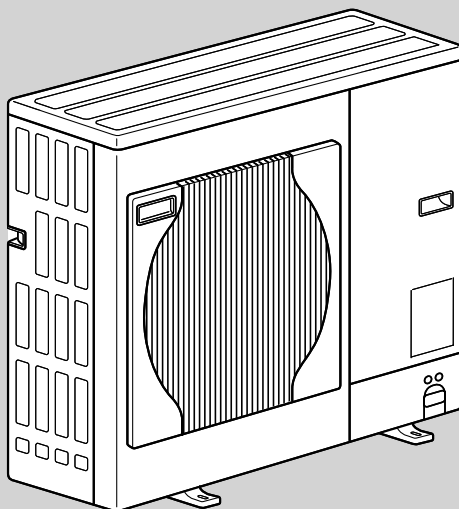
Revision:

- PUHZ-RP200YKAR1 is added in REVISED EDITION-A.
- Some descriptions have been modified.

- Please void OCH451.

Note:

- This manual does not cover the outdoor units. When serving outdoor units, please refer to the service manual of outdoor unit and this manual in a set.
- RoHS compliant products have <G> mark on the spec name plate.


**PUHZ-RP60VHA4  
PUHZ-RP71VHA4**

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**PARTS CATALOG (OCB451)**



Service Ref.				PUHZ-RP100VKA		PUHZ-RP125VKA		PUHZ-RP140VKA		
Mode				Cooling	Heating	Cooling	Heating	Cooling	Heating	
OUTDOOR UNIT	Power supply (phase, cycle, voltage)			Single 50Hz, 230V						
	Max. current		A	26.5			28			
	External finish			Munsell 3Y 7.8/1.1						
	Refrigerant control			Linear Expansion Valve						
	Compressor			Hermetic						
	Model		ANB33FDUMT				ANB42FDWMT			
	Motor output		kW	1.9		2.4		2.9		
	Starter type			Inverter						
	Protection devices			HP switch Comp.shell thermo Discharge thermo						
	Crankcase heater		W	—						
	Heat exchanger			Plate fin coil						
	Fan	Fan(drive) × No.		Propeller fan × 2						
		Fan motor output		kW	0.060+0.060					
		Airflow		m³/min(CFM)	110(3,880)			120(4,230)		
	Defrost method			Reverse cycle						
	Noise level	Cooling	dB	49			50			
		Heating	dB	51			52			
	Dimensions	W	mm(in.)	1,050(41-5/16)						
		D	mm(in.)	330+30(13+1-3/16)						
		H	mm(in.)	1,338(52-11/16)						
Weight		kg(lbs)	116(256)			119(262)				
Refrigerant			R410A							
Charge		kg(lbs)	5.0(11.0)							
Oil (Model)		L	1.40(FV50S)							
Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)							
	Gas	mm(in.)	15.88(5/8)							
Connection method	Indoor side		Flared							
	Outdoor side		Flared							
Between the indoor & outdoor unit	Height difference		Max. 30m							
	Piping length		Max. 75m							

Service Ref.				PUHZ-RP100YKA		PUHZ-RP125YKA		PUHZ-RP140YKA		
Mode				Cooling	Heating	Cooling	Heating	Cooling	Heating	
OUTDOOR UNIT	Power supply (phase, cycle, voltage)			3phase, 50Hz, 400V						
	Max. current		A	8			9.5		13	
	External finish			Munsell 3Y 7.8/1.1						
	Refrigerant control			Linear Expansion Valve						
	Compressor			Hermetic						
	Model		ANB33FDVMT				ANB42FDXMT			
	Motor output		kW	1.9		2.4		2.9		
	Starter type			Inverter						
	Protection devices			HP switch Comp.shell thermo Discharge thermo						
	Crankcase heater		W	—						
	Heat exchanger			Plate fin coil						
	Fan	Fan(drive) × No.		Propeller fan × 2						
		Fan motor output		kW	0.060+0.060					
		Airflow		m³/min(CFM)	110(3,880)			120(4,230)		
	Defrost method			Reverse cycle						
	Noise level	Cooling	dB	49			50			
		Heating	dB	51			52			
	Dimensions	W	mm(in.)	1,050(41-5/16)						
		D	mm(in.)	330+30(13+1-3/16)						
		H	mm(in.)	1,338(52-11/16)						
Weight		kg(lbs)	124(273)			126(278)		132(291)		
Refrigerant			R410A							
Charge		kg(lbs)	5.0(11.0)							
Oil (Model)		L	1.40(FV50S)							
Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)							
	Gas	mm(in.)	15.88(5/8)							
Connection method	Indoor side		Flared							
	Outdoor side		Flared							
Between the indoor & outdoor unit	Height difference		Max. 30m							
	Piping length		Max. 75m							



Representative matching			PLA-RP100BA3		PLA-RP125BA2		PLA-RP140BA2		
Mode			Cooling	Heating	Cooling	Heating	Cooling	Heating	
Total	Capacity	W	10,000	11,200	12,500	14,000	14,000	16,000	
	Input	kW	2.39	2.43	3.67	3.50	4.36	4.32	
Electrical circuit	<b>Indoor unit</b>		<b>PLA-RP100BA3</b>		<b>PLA-RP125BA2</b>		<b>PLA-RP140BA2</b>		
	Phase , Hz		1 , 50		1 , 50		1 , 50		
	Voltage	V	230		230		230		
	Current	A	1.00	0.94	1.07	1.00	1.07	1.00	
	<b>Outdoor unit</b>		<b>PUHZ-RP100VKA/ PUHZ-RP100YKA</b>		<b>PUHZ-RP125VKA/ PUHZ-RP125YKA</b>		<b>PUHZ-RP140VKA/ PUHZ-RP140YKA</b>		
	Phase , Hz		1/3, 50		1/3, 50		1/3, 50		
	Voltage	V	230/400		230/400		230/400		
	Current	A	10.4/3.51	10.26/3.59	15.73/5.51	15.20/5.26	18.83/6.59	18.69/6.54	
Refrigerant circuit	Discharge pressure	MPa	2.61	2.39	2.75	2.81	2.78	2.89	
	Suction pressure	MPa	0.99	0.72	0.85	0.69	0.83	0.66	
	Discharge temperature	°C	67	66	72	81	71	83	
	Condensing temperature	°C	44	38	46	46	46	47	
	Suction temperature	°C	15	4	8	5	7	5	
	Ref. pipe length	m	5	5	5	5	5	5	
Indoor side	Intake air temperature	D.B.	°C	27	20	27	20	27	20
		W.B.	°C	19	15	19	15	19	15
	Discharge air temperature	D.B.	°C	14.5	38.5	12.5	42.3	11.3	44.7
Outdoor side	Intake air temperature	D.B.	°C	35	7	35	7	35	7
		W.B.	°C	24	6	24	6	24	6
SHF			0.74	—	0.71	—	0.71	—	
BF			0.21	—	0.18	—	0.14	—	

The unit of pressure has been changed to MPa based on international SI system.  
The conversion factor is : 1(MPa)=10.2(kgf/cm<sup>2</sup>)

# PUHZ-RP60VHA4 PUHZ-RP71VHA4

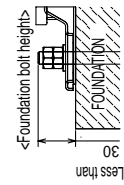
Unit : mm

### 4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: front, right, rear and below.

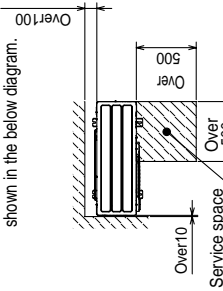
### 3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally.)



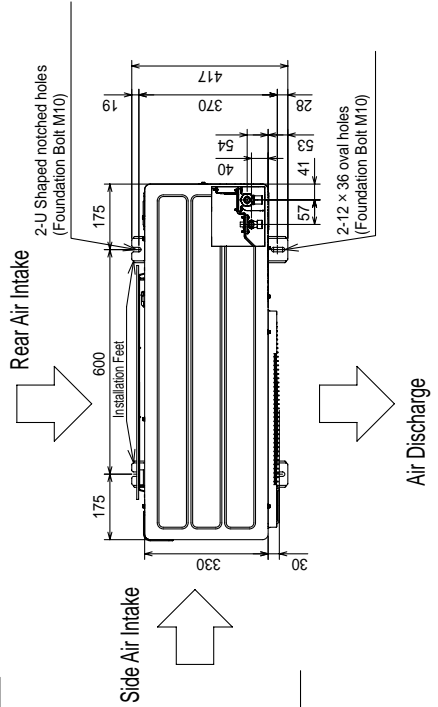
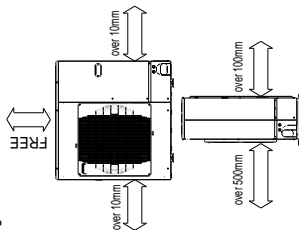
### 2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



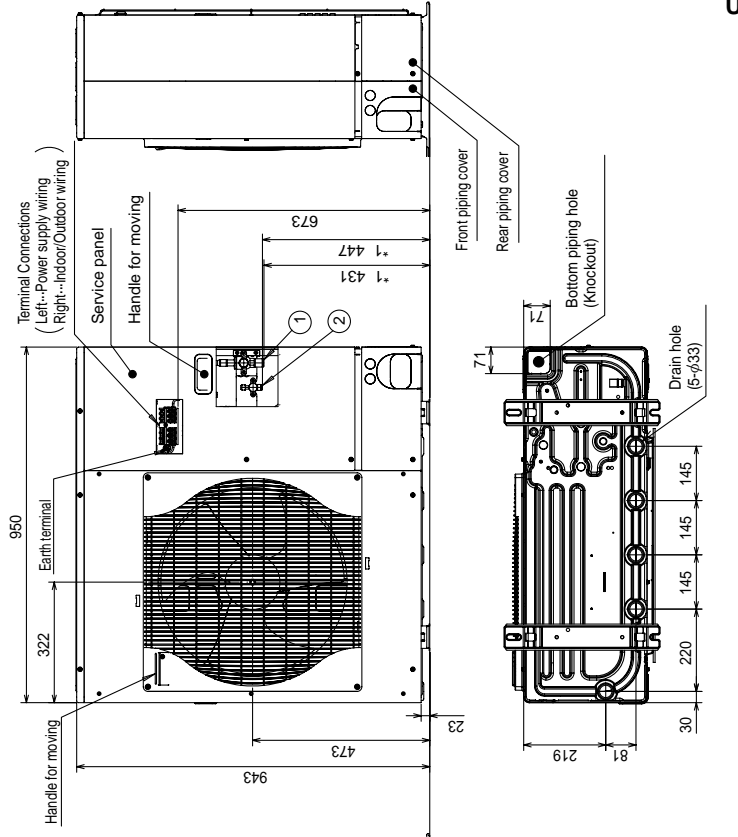
### 1 FREE SPACE (Around the unit)

The diagram below shows a basic example. Explanation of particular details is given in the installation manuals etc.

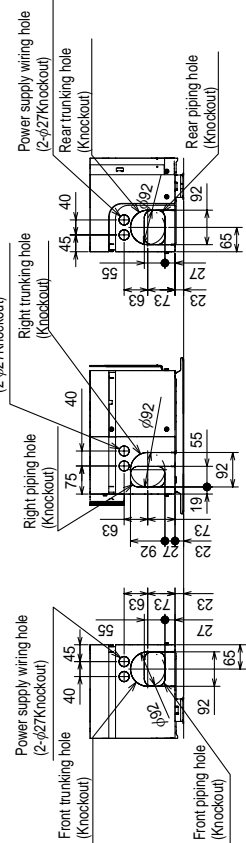


### Example of Notes

- ① Refrigerant GAS pipe connection (FLARE)  $\phi$ 15.88(5/8 inch)
- ② Refrigerant LIQUID pipe connection (FLARE)  $\phi$ 9.52(3/8 inch)
- \*1...Indication of STOP VALVE connection location.

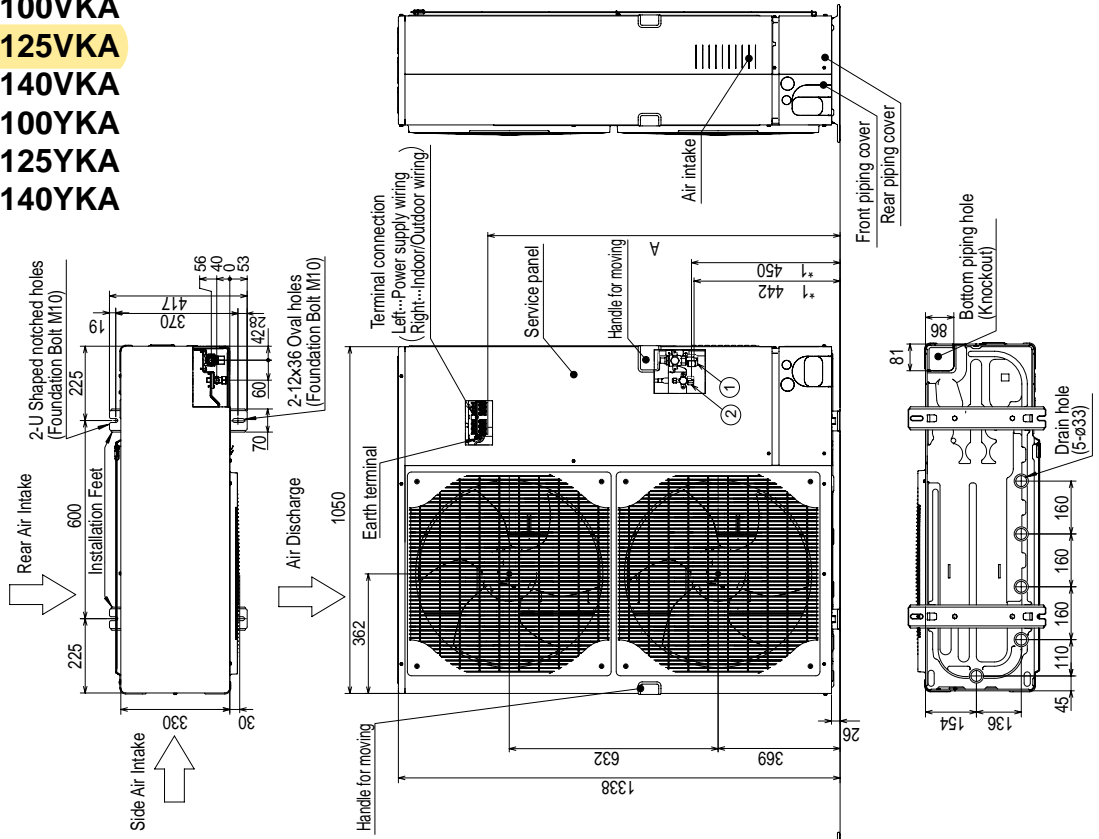


### Piping Knockout Hole Details



**PUHZ-RP100VKA**  
**PUHZ-RP125VKA**  
**PUHZ-RP140VKA**  
**PUHZ-RP100YKA**  
**PUHZ-RP125YKA**  
**PUHZ-RP140YKA**

Unit : mm

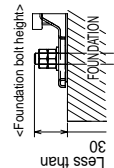


**4 PIPING-WIRING DIRECTIONS**

Piping and wiring connections can be made from 4 directions: FRONT, Right, Rear and Below.

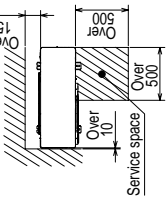
**3 FOUNDATION BOLTS**

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally).



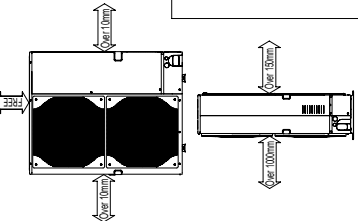
**2 SERVICE SPACE**

Dimensions of space needed for service access are shown in the below diagram.



**1 FREE SPACE (Around the unit)**

The diagram below shows a basic example. Explanation of particular details are given in the installation manuals etc.



**Example of Notes**

- ① ---Refrigerant GAS pipe connection (FLARE)ø15.88(5/8F)
- ② ---Refrigerant LIQUID pipe connection (FLARE)ø 9.52(3/8F)
- \*---Indication of STOP VALVE connection location.

Model	A
PUHZ-RP100-140VKA	1067
PUHZ-RP100-140YKA	919

**Piping Knockout Hole Details**

